

Test for Chloride Ion

1. Dissolve 3-5 mg of sample in 1 ml of 2M H₂SO₄. This will eliminate interference from non halides i.e. CO₃⁻², CN⁻ and S⁻² etc.
2. Add 10-15 mg of K₂S₂O₈. This oxidizes Br⁻ and I⁻ but not Cl⁻ to Br₂ or I₂. A brown coloration indicates the presence of I₂ or Br₂. This will eliminate interference from I⁻ and Br⁻.
3. Heat to 100° C. for 5-10 minutes. This will drive off halides as gases Br₂ and I₂.
4. Cool then add 2 Drops of .2M AgNO₃. A white precipitate indicates the presence of Chloride (Cl⁻). AgF is soluble in water.

Reagents:

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| .2M AgNO ₃ | 340mg/10mls |
| .2M KCl | 150mg/10mls |
| .2M KBr | 238mg/10mls |
| .2M KI | 330mg/10mls |
| 2M H ₂ SO ₄ | 11mls/100mls |